1 2 3 4 5 6 7	WILLIAM A. ISAACSON ( <i>Pro hac vice</i> ) (wisaacson@bsfllp.com) STACEY K. GRIGSBY ( <i>Pro hac vice</i> ) (sgrigsby@bsfllp.com) NICHOLAS A. WIDNELL ( <i>Pro hac vice</i> ) (nwidnell@bsfllp.com) BOIES SCHILLER FLEXNER LLP 1401 New York Avenue, NW, Washington, DC Telephone: (202) 237-2727; Fax: (202) 237-613 RICHARD J. POCKER #3568 (rpocker@bsfllp.com) BOIES SCHILLER FLEXNER LLP 300 South Fourth Street, Suite 800, Las Vegas, N	1
8 9 10 11 12	Telephone: (702) 382-7300; Fax: (702) 382-275  DONALD J. CAMPBELL #1216 (djc@campbellandwilliams.com) J. COLBY WILLIAMS #5549 (jcw@campbellandwilliams.com) CAMPBELL & WILLIAMS 700 South 7th Street, Las Vegas, NV 89101 Telephone: (702) 382-5222; Fax: (702) 382-054	
<ul><li>13</li><li>14</li><li>15</li><li>16</li><li>17</li></ul>	Attorneys for Defendant Zuffa, LLC, d/b/a Ultimate Fighting Championship and UFC  UNITED STATES I  DISTRICT O	
18 19 20 21 22 23	Cung Le, Nathan Quarry, Jon Fitch, Brandon Vera, Luis Javier Vazquez, and Kyle Kingsbury on behalf of themselves and all others similarly situated,  Plaintiffs, v.  Zuffa, LLC, d/b/a Ultimate Fighting Championship and UFC,	Case No.: 2:15-cv-01045-RFB-(PAL)  ZUFFA, LLC'S REPLY IN SUPPORT OF MOTION TO EXCLUDE THE TESTIMONY OF DR. HAL SINGER UNDER FED. R. EVID. 702 AND DAUBERT  HEARING REQUESTED
<ul><li>24</li><li>25</li><li>26</li><li>27</li><li>28</li></ul>	Defendant.	PUBLIC REDACTED VERSION

Zuffa Reply ISO Mot. to Exclude Testimony of Dr. Hal Singer

Case No. 15-cv-01045

TABLE OF CONTENTS			
GLOSSARY OF ABBREVIATIONSi			
INTRODUCTION			
LEGAL STANDARD			
ARGUMENT			
I. Dr. Singer's Regressions Fail Daubert Standards Because He Uses Wage Share To Assess Changes To Athletes' Compensation In Contradiction To The Results Shown Using Actual Wages.			3
	A.	Wage Share Is Not An Accepted, Tested, And Reliable Method	4
		No Acceptance In Case Law	4
		2. No Acceptance In Economic Literature.	5
		3. The Totality Of Economic Results Shows No Effect	7
	B.	Dr. Singer's Use Of Economic Theory Does Not Provide A Reasonable Inference Of Causality	8
II.		Singer's Regressions Omit Variables That Account For Major Factors That ald Change The Analysis.	10
	A.	Dr. Singer's Initial Regressions Fail To Include Any Independent Variables For Zuffa's Event Investments	10
	B.	Dr. Singer's New Report Demonstrates How Unreliable Dr. Singer's Regression Can Be If Event Cost Variables Are Excluded	11
III.		Singer's Regressions Use An Assumption About Market Foreclosure As An pendent Variable To Assess Changes to Athletes' Compensation	13
IV.		Singer's Input Markets Are Based On A Flawed Market And Market Share lysis.	15
V.		ntiff Cannot Justify Dr. Singer's Failure To Properly Define An Output ket And Analyze Effects In That Market.	16
CON	CLUSI	ION	17

	TABLE OF AUTHORITIES
C	CASES
В	Pazemore v. Friday, 478 U.S. 385 (1986)
В	8ourjaily v. United States, 483 U.S. 171 (1987)
C	Cabrera v. Cordis Corp., 134 F.3d 1418 (9th Cir. 1998)
C	City of Pomona v. SQM N. Am. Corp., 750 F.3d 1036 (9th Cir. 2014)
C	Contreras v. City of Los Angeles, 656 F.2d 1267 (9th Cir. 1981)
C	Craftsmen Limousine, Inc. v. Ford Motor Co., 2005 WL 3263288 (W.D. Mo. Dec. 1, 2005), aff'd, 491 F.3d 380 (8th Cir. 2007)
L	Daubert v. Merrill Dow Pharm., 509 U.S. 579 (1993)pass
Ιı	n re Aluminum Phosphide Antitrust Litig., 893 F. Supp. 1497 (D. Kan. 1995)
Ιı	n re LIBOR-Based Fin. Instruments Antitrust Litig., 2018 WL 1229761 (S.D.N.Y. Feb. 28, 2018)
Ιı	n re Live Concert Antitrust Litig., 863 F. Supp. 2d 966 (C.D. Cal. 2012)
$J_{i}$	ohnson v. Arizona Hosp. and Healthcare Ass'n, 2009 WL 5031334 (D. Ariz. July 14, 2009)4
K	Yumho Tire Co. v. Carmichael, 526 U.S. 137 (1999)
P	Pac. Bell Tel. Co. v. Linkline Commc'ns, Inc., 555 U.S. 438 (2009)
P	Penk v. Or. State Bd. of Higher Educ., 816 F.2d 458 (9th Cir. 1987)
R	Reed Const. Data Inc. v. McGraw-Hill Cos., 49 F. Supp. 3d 385 (S.D.N.Y. 2014), aff'd 638 F. App'x 43 (2d Cir. 2016)
S	tein v. Pac. Bell, 2007 WL 831750 (N.D. Cal. Mar. 19, 2007)
Τ	The Iams Co. v. Nutro Prod., Inc., 2004 WL 5496244 (S.D. Ohio June 30, 2004)
	2004 WL 5496244 (S.D. Ohio June 30, 2004)

# Case 2:15-cv-01045-RFB-BNW Document 551 Filed 05/07/18 Page 4 of 24

	of Concord, Mass. v. Boston Edison Co., 5 F.2d 17 (1st Cir. 1990)
Tyus	v. <i>Urban Search Mgmt.</i> , 2 F.3d 256 (7th Cir. 1996)3
U.S.	v. Syufy Enterprises, 3 F.2d 659 (9th Cir. 1990)15
	ed States v. Aluminum Co. of Am., 8 F.2d 416 (2d Cir. 1945)11
	ed States v. Grinnell Corp., 4 U.S. 563 (1966)11
Unive	ersal Coin & Bullion, Ltd v. Fed. Express Corp., 15 WL 12001264 (W.D. Tenn. June 30, 2015)9
Zenit	th Elecs. Corp. v. WH-TV Broad. Corp., 5 F.3d 416 (7th Cir. 2005)
	IER AUTHORITIES
"A	n Caves & Hal Singer, Analyzing <i>High-Tech Employee</i> : The Do's and Don'ts of Proving (and Disproving) Classwide httitrust Impact in Wage Suppression Cases"
Lewi	is Carroll, ice in Wonderland 90 (1866)14
RUL	ES
Fed F	R. Evid. 702passim
	iii

2

3

4

5

## **GLOSSARY OF ABBREVIATIONS**

For the Court's convenience in the interests of efficiency given the large number of exhibits and documents cited to by both parties, this reply uses these abbreviated citations consistent with Plaintiffs' Consolidated Brief in Opposition to Defendant Zuffa, LLC's ("Zuffa") Motion to Exclude the Testimony of Drs. Hal Singer and Andrew Zimbalist:

	· · · · · · · · · · · · · · · · · · ·	,	
6	Document	Citation	Docket No.
7	Declaration of Nicholas A. Widnell in Support of Zuffa's Reply in Support of Motion to Exclude the Testimony of Dr. Hal Singer Fed. R. Evid. 702 and <i>Daubert</i> (May 7, 2018)	WD	Filed concurrently herewith.
9	Declaration of Eric L. Cramer, Esq. (Feb. 16, 2018)	CD	ECF No. 518-1
0	Declaration of Eric L. Cramer, Esq. (Apr. 6, 2018)	CD2	ECF No. 534-1
	Plaintiffs' Motion for Class Certification (Feb. 16, 2018)	Class Mot.	ECF No. 518
	Zuffa's Opposition to Plaintiffs' Motion for Class Certification (Apr. 6, 2018)	Class Opp.	ECF No. 540
	Zuffa's Motion to Exclude the Testimony of Dr. Hal Singer Under Fed. R. Evid. 702 and <i>Daubert</i> (February 16, 2018)	Mot.	ECF No. 524
}  -	Zuffa's Motion to Exclude the Testimony of Dr. Andrew Zimbalist Under Fed. R. Evid. 702 and <i>Daubert</i> (February 16, 2018)	ZD	ECF No. 522
5	Plaintiffs' Consolidated Brief in Opposition to Defendant Zuffa, LLC's ("Zuffa") Motion to Exclude the Testimony of Drs. Hal Singer and Andrew Zimbalist (ECF Nos. 522, 524)	Орр.	ECF No. 534
7	Expert Report of Hal J. Singer, Ph.D. (August 31, 2017)	SR1	ECF No. 518-3
3	Rebuttal Expert Report of Hal J. Singer, Ph.D. (January 12, 2018)	SR2	ECF No. 518-4
)	Supplemental Expert Report of Hal J. Singer, Ph.D. (April 3, 2018)	SR3	ECF No. 534-3 (CD 2, Ex. 49)
)	Expert Report of Andrew Zimbalist in <i>Cung Le, et al. v. Zuffa, LLC</i> (August 30, 2017)	ZR1	ECF No. 518-5
	Expert Rebuttal Report of Andrew Zimbalist (December 26, 2017)	ZR2	ECF No. 518-6
	Expert Rebuttal Report of Prof. Alan Manning (January 12, 2018)	MR1	ECF No. 518-7
	Expert Report of Prof. Robert H. Topel (October 27, 2017)	TR1	ECF Nos. 528, 524-5
1	Sur-Rebuttal Expert Report of Prof. Robert H. Topel (February 12, 2018)	TR2	WD, Ex. 49
5	Prof. Robert H. Topel's Reply to the Supplemental Expert Report of Hal J. Singer, Ph.D.	TR3	WD, Ex. 50
	Expert Report of Paul Oyer (October 27, 2017)	OR1	ECF No. 524-10
7	Expert Report of Roger D. Blair (November 15, 2017)	BR1	ECF No. 522-10
8			

iv

INTRODUCTION

3 4 5

1

2

6 7

9 10

8

11 12

13 14

15 16

17

18

19 20

21

22 23

24

25

26

27

28

In its motion to exclude the testimony of Dr. Singer ("Mot."), Defendant Zuffa, LLC explained that Dr. Singer is using regression analysis that does not follow any generally accepted and tested method, has never previously been accepted by a Court, and suffers from multiple flaws, any of which would be grounds for excluding his opinions. In Opposition, Plaintiffs attempt to muddy the water by circular reasoning—arguing for example that the validity of inputs to a regression is supported by its results. They mischaracterize Zuffa's expert statements and point to non-existent concessions by Zuffa, such as the significance of the role of athletes in Zuffa's increased revenue. They also improperly argue for different standards from those set by the Ninth Circuit for expert opinion because Dr. Singer is not engaging in a "hard science." And then Plaintiffs and their expert introduce an entirely new regression that includes a new explanatory variable. SR3 ¶ 33; Table A2. Setting aside Zuffa's disagreements with the improper assumptions and mischaracterizations in Plaintiffs' Opposition, the Court should find that Plaintiffs have failed to rebut the arguments in Zuffa's Motion and must exclude this new regression under traditional *Daubert* standards.

*First*, underlying all of Plaintiffs' arguments is the incorrect contention that because multi-variable regressions are based on commonly accepted methodology, such regressions automatically survive a *Daubert* challenge. Opp. 24 (citing *Bazemore v. Friday*, 478 U.S. 385, 400 (1986)). The use of regression analysis does not exempt an expert's opinion from Daubert's requirements. Bazemore, 478 U.S. at 400 n.10 ("There may, of course, be some regressions so incomplete as to be inadmissible"); Penk v. Or. State Bd. of Higher Educ., 816 F.2d 458, 464–65 (9th Cir. 1987) ("Bazemore, however, does not give blanket approval to the introduction of all evidence derived from multiple regression analyses"); In re Live Concert Antitrust Litig., 863 F. Supp. 2d 966, 973 (C.D. Cal. 2012) ("courts have recognized that by its own terms, the Supreme Court's reasoning in *Bazemore* applies only to a regression analysis 'which accounts for the major factors'") (citation omitted).

Dr. Singer's regressions purportedly establish a negative relationship between what he calls "foreclosure share" and wage share. They are inadmissible in at least the following ways:

- A finding of anticompetitive effect here directly contradicts that actual compensation has increased in the class period. This is confirmed by Dr. Singer's own regression analysis: If actual wages are used in Dr. Singer's regression, rather than wage share, no anticompetitive effect is found.
- A change in wage share is not an accepted, reliable method for determining an anticompetitive effect, particularly when a regression analysis also shows that there is no relationship between the Challenged Conduct and actual wages.
- Dr. Singer's regressions do not provide a sufficient basis to infer causation between market foreclosure and reduced compensation. A change in wage share can result from numerous causes that affect the total amount of revenues rather than decreasing the amount of compensation. Without testing his assumptions, Dr. Singer assumes that a change in wage share is due to an anticompetitive change in compensation.
- Except for his most recent regression attached to the Opposition, Dr. Singer's regressions omit explanatory variables related to event costs that explain higher event revenue. The results of Dr. Singer's new regression, which controls for only *part* of Zuffa's non-athlete event costs, shows that his previous regressions are missing major variables and are inadmissible.
- When Dr. Singer's regression is modified to account for Zuffa's non-athlete compensation event costs on an event level, there is no statistically significant relationship between his "foreclosure share" variable and wage share.
- The "foreclosure share" input in Dr. Singer's regressions assumes that changes in the share of athletes under certain UFC contracts forecloses competition.

Second, there are multiple flaws with Dr. Singer's opinions that do not rely on regressions such as his opinions about market definition and market power in the markets for MMA athletes ("input markets") and markets for MMA promotion ("output markets"). Dr. Singer claims that he applied the "hypothetical monopolist" test from the Horizontal Merger Guidelines<sup>1</sup> to define each relevant input or output market (SR1 ¶¶ 99, 120; WD Ex. 37, Singer Dep. I 55:8-19; 280:13-282:20) but in reality, fails to apply any accepted methodology to his approach to market definitions and, contrary to Ninth Circuit authority, improperly weights the share of his input markets for MMA athletes with downstream revenue of Zuffa. Mot. 4-5.

<sup>&</sup>lt;sup>1</sup> This test starts at the individual product level and then adds close product substitutes so as to construct the narrowest group of products over which a hypothetical monopolist profitably could impose a "small but significant and non-transitory increase in price ('SSNIP')" without losing sales to competitive alternatives. ECF No. 524-8 at p. 9. For input markets, the test adds additional inputs to construct the narrowest group of inputs where a hypothetical monopsonist could impose a "small but significant and non-transitory decrease in price" ("SSNDP").

*Finally*, Dr. Singer asserts that Zuffa has market power, but Dr. Singer failed to use a regression to assess the effects of market changes and failed to control for clearly relevant variables—such as changes in costs, demand, and supply—that explain his conclusions. Contrary to legal precedent, Plaintiffs assert that Dr. Singer's opinion need not account for relevant variables.

#### LEGAL STANDARD

In its Motion, Zuffa noted that the Ninth Circuit has regularly affirmed exclusion of untested scientific methods. Mot. 6 (citing cases). Plaintiffs invent a more lenient admissibility requirement by claiming—without citing any case law—that Dr. Singer's methods should be subject to a *Daubert* standard that could "sometimes fall short of the criteria" identified in *Daubert*. Opp. 9 n.14. Plaintiffs even argue for less *Daubert* scrutiny because "economics is not the same as the hard sciences." *Id. Daubert* provides only one standard for admissibility that "is applicable to social science experts, just as it applies to experts in the hard sciences." *Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1996) (collecting cases); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (*Daubert*'s "basic gatekeeping obligation" applies to all expert testimony, whether "scientific" in nature or not).

#### **ARGUMENT**

I. <u>Dr. Singer's Regressions Fail Daubert Standards Because He Uses Wage Share To Assess Changes To Athletes' Compensation In Contradiction To The Results Shown Using Actual Wages.</u>

Dr. Singer's conclusion that alleged anticompetitive conduct negatively impacted Zuffa's athletes is based on a comparison between changes to "foreclosure share" and changes to wage share. But Plaintiffs cannot articulate a rationale for Dr. Singer's use of wage share instead of athlete compensation or why an impact to wage share, without an impact on athletes' compensation, is evidence of anticompetitive harm.

The cases cited in Zuffa's Motion hold that for a regression to be reliable it must provide a sufficient basis for establishing an inference of causation. Mot. 24-26. Since that Motion, the *In re LIBOR-Based Fin. Instruments Antitrust Litig.*, 2018 WL 1229761 (S.D.N.Y. Feb. 28, 2018) decision rejected an expert's report for precisely this failing. The court

excluded regressions that purportedly established a relationship between changes in LIBOR and changes in Eurodollar futures contract prices. The court rejected those regressions because "the causal relationship purportedly supported by these regressions defies common sense." *Id.* at \*26. That is precisely the issue here.

### A. Wage Share Is Not An Accepted, Tested, And Reliable Method.

As Zuffa has explained, an analysis of wage share does not provide a reliable means of inferring anticompetitive effect, antitrust injury or damages because it cannot distinguish between a decrease in wage share as a result of the challenged conduct and a decrease as a result of legal and procompetitive business developments that increase overall revenues. Mot. 9-10; TR1 ¶¶ 133-40 & App. A; *e.g. The Iams Co. v. Nutro Prod., Inc.*, 2004 WL 5496244, at \*4 (S.D. Ohio June 30, 2004) (excluding regression analysis for using wrong dependent variable because "there is no rationale in the economic literature for using that sort of ratio for measuring this kind of effect . . . . None of the ratios used in the sample analyses [the expert] cites provides support for using this ratio in this industry to measure this alleged cause").

# 1. No Acceptance In Case Law.

No court has ever permitted testimony based on a regression model using wage share as the dependent variable in order to establish that conduct caused an anticompetitive effect. Mot. 14. Plaintiffs fail to refute this point. The only case Plaintiffs identify where an expert considered wage share was *Johnson v. Ariz. Hosp. and Healthcare Ass'n*, 2009 WL 5031334 (D. Ariz. July 14, 2009) (Dr. Singer was the expert). Opp. 15. The court in *Johnson* never had to consider a challenge to Dr. Singer's method, which did not even involve a regression. Unlike this case, the plaintiffs in that case were paid a percentage of their billings—that is, plaintiffs' wages *were* a share of revenue.<sup>2</sup> On that basis, Dr. Singer argued that "evidence that the base rate was deflated by the anticompetitive conduct alleged constitutes common evidence

<sup>&</sup>lt;sup>2</sup> No UFC athlete is paid a percentage of event revenues. Plaintiffs attempt to characterize some Zuffa athlete compensation as a wage share by

2. No Acceptance In Economic Literature.

of impact."3

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

There is an absence of economic literature using regression analysis with wage share as a dependent variable to infer anticompetitive conduct. Mot. 12-16. The method is not widely accepted, or tested for validity. Daubert v. Merrill Dow Pharm., 509 U.S. 579, 592-94 (1993) (requiring an inquiry into whether a "theory" is testable, generally accepted within "a relevant scientific community," and meets other requirements). Plaintiffs mischaracterize past economic work that references "wage share," but do not include any scholarly article that does or endorses what Dr. Singer attempts to do here—use wage share as the dependent variable in a regression to attempt to show causation—i.e., that changes to wage share establish an anticompetitive effect. TR2 ¶ 18. For the Court's convenience, Zuffa summarizes how wage share is used (or not used) in the articles Plaintiffs cite. WD Ex. 40.

Certain articles (e.g. Autor et al. 2017; Barkai 2016) investigate labor's share of revenue within an entire industry—not at a single firm—but do not infer the existence of anticompetitive activity from the relationship of wage share to conduct or the concentration of firms within an industry. TR2 ¶ 18. Others discuss the impact of an already-known change in monopsony power (e.g. the elimination of baseball's reserve clause) on economic outcomes, including both actual wages and wage share.<sup>4</sup> TR2 ¶ 22-23. Finally, certain articles mention wage share but do not analyze or discuss monopsony power.<sup>5</sup> TR2 ¶¶ 20-21.

As Zuffa's experts have said all along, there is no support for the use of wage share as a dependent variable in a regression to determine whether monopsony power exists and Dr. Singer's use of wage share is at odds with established labor economics. TR1 ¶¶ 127-32; Topel

<sup>&</sup>lt;sup>3</sup> WD Ex. 39, Singer Reply Report in *Johnson* ¶ 5; *Johnson*, 2009 WL 5031334 at \*8.

<sup>&</sup>lt;sup>4</sup> These articles include Hill and Spellman (1983), Kahn (2000), Krautmann (1999), Monks (2013), Noll (1988), Pindyck and Rubinfeld (2013), Raimondo (1983), Rittenberg and Tregarthen (2009), Scully (1974), Scully (1978), Scully (2004), Sommers & Quinton (1982), and Twomey & Monks (2011). Several articles also do not focus on monopsony power, at most mentioning such power as a minor aside: De Loecker & Eeckhout (2017), Elsby et al. (2013), Fort and Noll (1984), Horowitz (1974), Noll (1974), and Vrooman (2012). TR2 ¶ 22.

<sup>&</sup>lt;sup>5</sup> These articles include Murphy and Topel (2009), Ruffin et al. (1993).

Dep. 217:4-18; BR1 ¶¶ 44-48; OR1 ¶¶ 12, 15-18. Far from validating Dr. Singer's use of wage share, Plaintiffs' expert, Prof. Alan Manning admits that there are no publications or written materials using the three factors he describes as the conditions under which the use of wage share would be appropriate. WD Ex. 42, Manning Dep. 33:13-39:19; MR1 ¶ 6.6

Prof. Manning's opinion is not useful here because he does not apply *Daubert* standards, and instead argues for a standard that an economic model should be "non-falsifiable." Manning Dep. 53:14-59:11. Rather, under *Daubert*, reliance on unpublished, untested, and unsubstantiated knowledge "is the antithesis of the scientifically reliable expert opinion admissible under *Daubert* and Rule 702." *Cabrera v. Cordis Corp.*, 134 F.3d 1418, 1423 (9th Cir. 1998) (citation omitted). Testing the validity of regressions using wage share to identify an anticompetitive effect is particularly important because it has not been done before.

Dr. Singer's wage share method also requires heavy scrutiny because it would permit a form of price regulation: a mandatory share of revenue allocated for compensation. Zuffa compensates athletes based on its perception of the athlete's value and market forces, leading to a wide range of athlete compensation. BR1 ¶¶ 17, 79 & App. F; TR1 ¶¶ 260-65; WD Ex. 41, 30(b)(6) Dep. 84:15-19. Economics does not predict that companies such as Zuffa will pay labor a defined share of its revenues. TR1 ¶ 127; OR1 ¶ 39 ("there is no reason to think that labor costs should be a fixed percentage of revenue as Zuffa and the MMA market grow. The change in fighter share could go in either direction"); *id.* ¶ 33.

That is one of many reasons why courts have repeatedly avoided determining a "fair" price in antitrust cases, even monopolization cases where only one firm sets prices in a market. "Courts are ill suited 'to act as central planners, identifying the proper price, quantity, and

<sup>&</sup>lt;sup>6</sup> Plaintiffs falsely contend "*Zuffa admits*, Dr. Manning's endorsement of Singer's method relies on 'well-established ideas' in his field," (Opp. 17) by citing their own expert's testimony for Zuffa's non-existent concession and provide no support for their contention.

<sup>7</sup> Prof. Manning could not contemplate any scenario—real or hypothetical—in which his nonfalsifiable "standard" was not met. Manning Dep. 53:14-59:11; *see City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1046 (9th Cir. 2014); Fed R. Evid. 702 adv. cmte. Note (2000) (*Daubert* rejects a theory that is "simply a subjective, conclusory approach that cannot reasonably be assessed for reliability").

other terms of dealing." *Pac. Bell Tel. Co. v. Linkline Commc'ns, Inc.*, 555 U.S. 438, 452 (2009) (citation omitted). As Justice (then Judge) Breyer once explained:

How is a judge or jury to determine a 'fair price?' Is it the price charged by other suppliers of the primary product? None exist. Is it the price that competition 'would have set' were the primary level not monopolized? How can the court determine this price without examining costs and demands, indeed without acting like a rate-setting regulatory agency, the rate-setting proceedings of which often last for several years? . . And how should the court respond when costs or demands change over time, as they inevitably will?

*Id.* at 454 (quoting *Town of Concord, Mass. v. Boston Edison Co.*, 915 F.2d 17, 25 (1st Cir. 1990)). Dr. Singer's proposed wage share methodology would force the factfinder into the untenable position of having to determine the "fair price."

3. The Totality Of Economic Results Shows No Effect.

This is not a case where a regression using actual wages cannot be performed or where such a regression supports the use of wage share. Plaintiffs' incorrectly assert that a regression on wage levels is misleading because of rising event revenues, Opp. 16, but rising event revenues can be controlled for like any other variable. This was the approach used in *High-Tech Employees* which Dr. Singer has previously endorsed.<sup>8</sup>

The asserted causal relationship between decreased wage share and decreased compensation cannot be reconciled with Prof. Topel's uncontested finding that, during the same time period, actual compensation *increased*. TR1 ¶¶ 169-71 & Exs. 17-18. And if actual wages are used rather than wage share as the dependent variable in Dr. Singer's regressions, the "foreclosure share" has no anticompetitive effect. *Id.* ¶¶ 146-48 & Ex. 13. Plaintiffs have not offered a single case or scholarly article where an expert used a wage share method to find an anticompetitive effect and where the results of the same regression using actual compensation showed no such effect.

<sup>&</sup>lt;sup>8</sup> WD Ex. 48, Kevin Caves & Hal Singer, "Analyzing *High-Tech Employee*" at 4 ("The plaintiff's expert presented an econometric analysis . . . that sought to explain variation in real annual employee compensation (the dependent variable), with variation in the alleged anticompetitive conduct . . . and other explanatory variables, including employee age, gender, and years at the company, **employer revenue**, and number of new hires") (emphasis added).

The result of Dr. Singer's regressions also is the counter-intuitive finding that Zuffa *overpaid* some athletes. TR1 Ex. 34 ( ); Class Opp. 15-16. Rather than viewing these athletes' significant compensation as a reflection of the "additional value that the employee creates," OR1 ¶ 15, Dr. Singer proposes a methodology that would suppress these athletes' additional value by limiting their compensation to a set percentage of event revenues. *E.g.* Opp. 7-10; SR1 Tables 9-11.

B. <u>Dr. Singer's Use Of Economic Theory Does Not Provide A Reasonable Inference Of Causality.</u>

Plaintiffs and Dr. Singer defend their wage share method by pointing to economic theory concerning the Marginal Revenue Product (MRP) of Labor. Dr. Singer contends that, in theory, in a competitive market, MRP should be proportional to all revenue increases. As a result, when Dr. Singer sees rising event revenues he assumes that "Fighters are responsible for a measurable *proportion* of that growth" and then concludes that the decline in wage share is a reflection of the exercise of monopsony power. Opp. 20; SR1 ¶¶ 178, 186; SR2 ¶ 40.

Economic theory is not a substitute for the *Daubert* standards of a generally accepted and tested economic model. But neither Plaintiffs' citations to evidence showing that athletes are important revenue drivers, Opp. 21 & nn.41-42, nor Dr. Singer's regression analysis answer the key question: *What* proportion of increased revenues are attributable to athletes?

Dr. Singer's reports did not cite any support that competitive firms pay labor "a share of revenue commensurate with labor's productivity," TR1 ¶ 132 (citing SR1 n.454) nor could Dr. Singer cite any study contemplating that firms in an industry should pay the same percentage of their revenue to labor. Singer Dep. I 196:23-197:7. Instead, Dr. Singer called upon "economic theory" to support his conclusion. *Id.* Dr. Singer's reasoning is entirely theoretical and has not been tested or accepted as a means for measuring an anticompetitive effect. For example, the concept of a "perfectly competitive market" is a theoretical construct for conceptualizing the effects of competition. WD Ex. 43, Topel Dep. 17:18-22; WD Ex. 44, Zimbalist Dep. II 79:5-17. Similarly, the concept of the MRP of labor is a theoretical concept

labor economists use to help explain the compensation labor should receive in a perfectly competitive market and is not directly observable. TR1 ¶ 130; TR2 ¶ 4; SR2 ¶ 8.

No court has adopted Dr. Singer's theoretical arguments to support his regression methods. He admits there is no way to measure MRP reliably, WD Ex. 38, Singer Dep. II 421:24-422:4, and that he had not "attempted to actually estimate the marginal revenue product of the fighter portion of the labor force of the UFC," Singer Dep. I 123:6-20, Singer Dep. II 432:4-16, 433:13-434:1.9

Plaintiffs justify using event revenues as a "proxy" for MRP by claiming this is the "rare case" in which there is a close and observable relationship between a worker's productivity and revenues. Opp. 15; SR2 ¶ 8. But no expert in this case has shown that event revenue is proportional to marginal revenue product. Singer Dep. II 432:4-16; Manning Dep. 62:22-63:21; *see Universal Coin & Bullion, Ltd v. Fed. Express Corp.*, 2015 WL 12001264, at \*8 (W.D. Tenn. June 30, 2015) (rejecting use of gold demand as a proxy for rare coin demand in regression model where "Dr. Marshall's assumption that the gold and rare coin demands are correlated is not based on any scientific method" and there was "nothing in the record to support Dr. Marshall's assumption that the gold demand mimics rare coin demand to a statistical reliability").

Plaintiffs also point to Prof. Manning's statement: "If revenue for the fight is twice as large then the MRPL is twice as high and fighter compensation in a competitive market would be twice as high. So the marginal revenue product will be proportional to the event revenue." MR1 ¶ 27. But, contrary to Plaintiffs' assertion, Prof. Manning clarified at his deposition that he was presenting a hypothetical. WD Ex. 42, Manning Dep. 92:13-94:2.10

<sup>&</sup>lt;sup>9</sup> Many of the wage share articles that Dr. Singer cites performed the exercise of attempting to calculate the MRP of the particular worker, a step which in this case Dr. Singer called "unnecessary." Singer Dep. II 433:13-434:1; TR2 ¶ 16.

<sup>&</sup>lt;sup>10</sup> Plaintiffs contend that Zuffa's argument means that "the entire literature on labor economics and monopsony power would be inadmissible" because MRP is rarely directly observable. Opp. 19. This is untrue. "Economists doing empirical analysis of earnings typically look at the *level* of pay". OR1 ¶ 12. Zuffa's argument is that Dr. Singer's untested

In addition, many non-athlete inputs affect event revenues that have nothing to do with the productivity of athletes. Mot. 19; TR1 ¶¶ 134,138-39, App. A; OR1 ¶ 36 ("Having good fighters and other workers, as well as having built the sport successfully, would be the factor causing the increase in fight revenue. As a result, this would also spuriously decrease fighter share though the fighter's marginal product did not decrease"). Plaintiffs (wrongly) assert that Zuffa did not previously raise this argument and mischaracterize it as only an omitted variable issue. Opp. 22-23 & n.44. The flaws in Dr. Singer's model go far beyond the omission of a major variable; his wage share approach is methodologically incapable of accounting for increased efficiency over time, as Zuffa's experts have explained. TR1 ¶¶ 138-39 & App. A.

- II. <u>Dr. Singer's Regressions Omit Variables That Account For Major Factors That Would Change The Analysis.</u>
  - A. <u>Dr. Singer's Initial Regressions Fail To Include Any Independent Variables For</u> Zuffa's Event Investments.

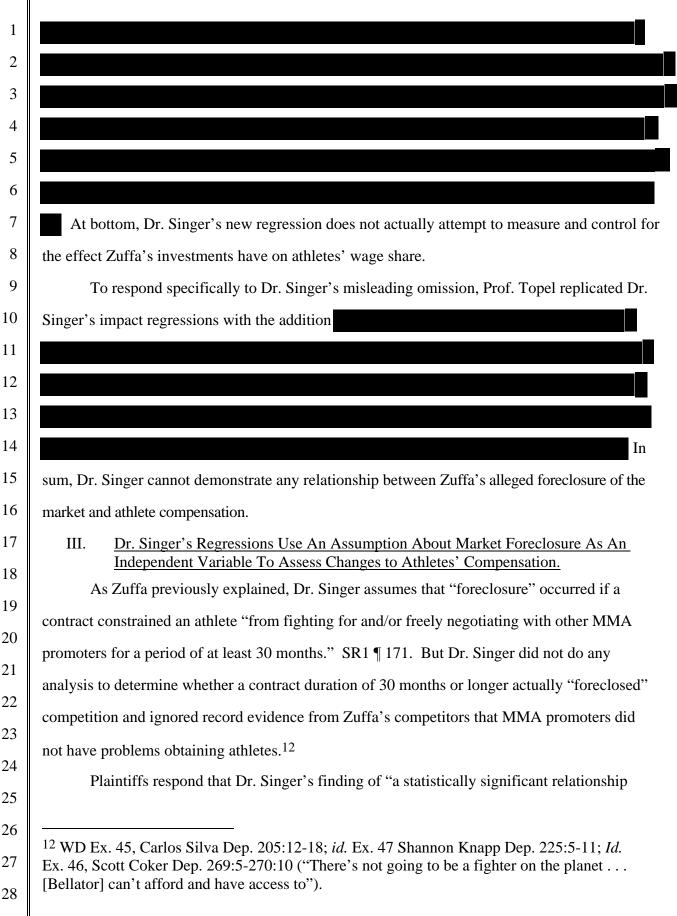
In addition to the flaws discussed above, Dr. Singer also failed to include relevant and important variables in his initial regressions. Courts regularly exclude regressions under *Daubert* that omit major variables that would likely change (and weaken) the regression's results. *E.g.*, *Live Concert*, 863 F. Supp. 2d at 974 ("the key question regarding the admissibility of [the expert's] statistical analyses is whether they account for the 'major factors'"). Zuffa has specifically identified omitted major variables that should have been included and Plaintiffs bear the burden of showing that Dr. Singer's analysis nonetheless remains reliable. *Id.* (citing *Bourjaily v. United States*, 483 U.S. 171, 175-76 (1987)).

All of Dr. Singer's wage share regression results are explainable by increasing revenue from a superior product, business acumen, and marketing, and not decreasing wages. E.g., TR1 ¶ 139. Dr. Singer has acknowledged "in theory" that other costs incurred by Zuffa, such as marketing, promotion, production, and other factors that make events more popular, could affect event revenue. Singer Dep. I 119:8-121:21. But Dr. Singer's previous regressions

approach should be excluded, not that the well-researched and widely tested methodology, which has been accepted by many courts, including in *High-Tech Employees*, of evaluating alleged anticompetitive impact on the levels of a worker's compensation should be too.

1	omitted any independent variables accounting for Zuffa's promotional and event-related non-
2	athlete compensation costs—categories plainly relevant to the development and production of
3	Zuffa's "superior product." SR1 Tables 4-5 (listing regression variables). Dr. Singer's
4	previous regressions did not attempt to distinguish between anticompetitive conduct and the
5	"growth or development as a consequence of a superior product" or the "business acumen" that
6	lies at the heart of lawful competition. United States v. Grinnell Corp., 384 U.S. 563, 571
7	(1966); see also TR1 $\P\P$ 134-38. This "superior skill, foresight and industry" are "those very
8	forces" the antitrust laws were designed to foster. United States v. Aluminum Co. of Am., 148
9	F.2d 416, 430 (2d Cir. 1945).
10	Plaintiffs cite Dr. Singer's
11	response to Zuffa's argument that Dr. Singer omitted major variables from his regressions.
12	Opp. 23. Those variables are incapable of capturing investments in events by Zuffa because
13	
14	TR3 ¶¶ 25, 28-32.
15	B. Dr. Singer's New Report Demonstrates How Unreliable Dr. Singer's Regression  Can Bo If Event Cost Veriables Are Evaluded
15 16	Can Be If Event Cost Variables Are Excluded.
	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,
16	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same
16 17	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a
16 17 18	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account
16 17 18 19	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in
16 17 18 19 20	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of
16 17 18 19 20 21	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of Zuffa's revenue and athlete compensation. TR1 ¶¶ 126, 134, 138, 162, 214, 221, 224; TR2 ¶¶
16 17 18 19 20 21 22	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of Zuffa's revenue and athlete compensation. TR1 ¶¶ 126, 134, 138, 162, 214, 221, 224; TR2 ¶¶ 6-8, 45; see also OR1 ¶¶ 36-37; BR1 ¶ 60.
16 17 18 19 20 21 22 23	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of Zuffa's revenue and athlete compensation. TR1 ¶ 126, 134, 138, 162, 214, 221, 224; TR2 ¶ 6-8, 45; <i>see also</i> OR1 ¶ 36-37; BR1 ¶ 60.  The inclusion of promotional expenses in Dr. Singer's new regression clearly
16 17 18 19 20 21 22 23 24	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of Zuffa's revenue and athlete compensation. TR1 ¶¶ 126, 134, 138, 162, 214, 221, 224; TR2 ¶¶ 6-8, 45; <i>see also</i> OR1 ¶¶ 36-37; BR1 ¶ 60.  The inclusion of promotional expenses in Dr. Singer's new regression clearly demonstrates his previous regressions were unreliable. In this new regression:
16 17 18 19 20 21 22 23 24 25	Can Be If Event Cost Variables Are Excluded.  As part of Plaintiffs' Opposition, Dr. Singer introduces an entirely new regression,  SR3, Table A2, that finally <i>does</i> attempt to control for promotional expenses (from the same data that was always available to him, TR3 ¶ 2). The new impact regression includes a "Promotional Expenses Per Event" variable for Zuffa and Strikeforce that attempts to account for what Zuffa's experts have said (at length) all along: promotional efforts and investments in producing an excellent product are centrally relevant to a determination of the key drivers of Zuffa's revenue and athlete compensation. TR1 ¶ 126, 134, 138, 162, 214, 221, 224; TR2 ¶ 6-8, 45; <i>see also</i> OR1 ¶ 36-37; BR1 ¶ 60.  The inclusion of promotional expenses in Dr. Singer's new regression clearly

1 2 3 4 5 The large changes in the magnitudes of coefficients and significance levels in Dr. 6 Singer's new regression indicate a major variable was omitted from his original regressions. 7 Reed Const. Data Inc. v. McGraw-Hill Cos., 49 F. Supp. 3d 385, 401-02 (S.D.N.Y. 2014), 8 aff'd, 638 F. App'x 43 (2d Cir. 2016) (excluding regression where "another unobserved 9 variable—increased competition—can explain the narrowing gap" between national and local 10 prices attributed to defendant's misconduct); Contreras, 656 F.2d at 1294 n.4 ("Statistics are 11 not trustworthy when minor numerical variations produce significant percentage fluctuations"). 12 Dr. Singer states that his new regression adds 13 14 SR3  $\P$  33 (citing TR2  $\P$  8). His new regression and the variables he 15 adds to it are flawed and highly misleading. First, Dr. Singer picks only certain promotional costs 16 to include in his new regression, and omits other event costs directly related to producing a 17 quality product such as production costs. TR3 ¶¶ 15-18. Dr. Singer provides no explanation for 18 why—despite having the event-level cost data available in his original regression data set, id. ¶ 20 19 —he still fails to include these relevant costs in his regression. Second, Dr. Singer does not use 20 such expenditures to directly measure the effect that Zuffa's expenses to promote an event have 21 on athletes' wage share at the same event which is the question he claims to address. *Id.* ¶¶ 7, 9, 22 12, 25. Instead, in a highly technical exercise, 23 24 25 26 11 Contreras v. City of Los Angeles, 656 F.2d 1267, 1273 (9th Cir. 1981); Fed. Judicial Ctr., Ref. 27 Manual on Sci. Evid. (3d ed. 2011) 251-52 ("In practice, statistical analysts typically use levels of 5% and 1%," equivalent to p-values of 0.05 and 0.01). 28 12



between increases in Zuffa's Foreclosure Share and decreases in its Wage Share . . . offers powerful support for his approach." Opp. 25. Plaintiffs' claim is that if a regression reaches a desired result, then the inputs are correct. That is circular reasoning right out of *Alice in Wonderland*:

"But I don't want to go among mad people," Alice remarked.

"You can't help that," said the cat: "we're all mad here. I'm mad. You're mad."

"How do you know I'm mad?" said Alice.

"You must be," said the cat, "or you wouldn't have come here."

Alice didn't think that proved it at all;

WD Ex. 51, Lewis Carroll, *Alice in Wonderland* 90 (1866). This type of tautology has been rejected in similar cases. *E.g.*, *Live Concert*, 863 F. Supp. 2d at 975-76.

Plaintiffs' second argument is that Dr. Singer's analysis of the duration of MMA athletes' careers proves that the contractual provisions prevent Zuffa athletes from being able to move to other promoters. Zuffa's economists have identified numerous flaws with this analysis, 13 but even if one accepted it, Dr. Singer has still not shown that an increase in foreclosure share has an actual market foreclosure effect on other MMA promoters. Courts have rejected the use of independent variables in similar circumstances. *Craftsmen Limousine*, *Inc. v. Ford Motor Co.*, 2005 WL 3263288, at \*7 (W.D. Mo. Dec. 1, 2005), *aff'd*, 491 F.3d 380 (8th Cir. 2007). In *Craftsmen*, the court excluded a regression analysis that used an "independent variable called 'antitrust indicator' to represent alleged anticompetitive conduct." *Id.* The court found the regression unreliable to prove anticompetitive effect because the expert "never analyzes the alleged restraints—advertising and trade show restrictions—to determine if they were anticompetitive." *Id.* The expert's opinions of the alleged restraints, without any quantitative analysis, were insufficient to support his opinion. *Id.* 

Plaintiffs' final argument is that Dr. Singer's analysis of Zuffa's internal documents support a finding of foreclosure. Opp. 27. But Dr. Singer has no more expertise interpreting Zuffa's documents than do the Court and the Jury. And Dr. Singer's analysis of Zuffa's documents is still not an analysis of the extent to which the "foreclosure share" actually

 $<sup>^{13}</sup>$  TR1  $\P$  116; TR2  $\P\P$  37-41; see also BR  $\P$  21 & App. D & E.

foreclosed other MMA promoters from accessing MMA athlete inputs. *Craftsmen*, 2005 WL 3263288, at \*7 ("informal, off-the-cuff remarks add little to the econometric analysis").

# IV. <u>Dr. Singer's Input Markets Are Based On A Flawed Market And Market Share</u> Analysis.

Dr. Singer defines three input markets: (1) "Tracked"—promoters with athletes in the FightMetric database; (2) "Headliner"—promoters with a top-15 ranked athlete from the FightMatrix database; and (3) "Ranked"—North American promoters with an athlete ranked by FightMatrix. SR1 ¶ 99. He relies on his calculation of market shares derived from the input markets to (1) assert indirect evidence of market power and (2) create his "foreclosure share." Dr. Singer's methodology remains flawed in at least three ways:

First, Dr. Singer departs from the Merger Guidelines with respect to how he calculates market share. Dr. Singer does not identify the number of athletes in each of the three markets and calculate what percentage of those athletes Zuffa has under contract. Instead, he uses a distortionary method of weighting by promoter revenue that erroneously complicates an otherwise simple market share exercise. Mot. 33-35; SR1 ¶ 128. The Ninth Circuit rejected this market share calculation approach in U.S. v. Syufy Enterprises, 903 F.2d 659, 663-64 (9th Cir. 1990), because there was not a clear relationship between downstream revenues and upstream market power. Plaintiffs try to distinguish Syufy by asserting that here "there is no dispute that Fighter pay is proportional to Event Revenues." Opp. 49 n.94. Plaintiffs no doubt meant to say that they believe based on Dr. Singer "fighter pay should be proportional to Event Revenues." Dr. Singer's conclusion in the real world that fighter pay decreased relative to event revenue, SR1 ¶ 186, is an express finding that fighter pay has not been proportional to event revenue. As such, Syufy directly applies and requires rejection of Dr. Singer's method.

**Second**, Dr. Singer's analysis of market definition relies on athlete rankings to define the markets. In doing so, Dr. Singer impermissibly uses pre-existing third-party lists of

<sup>&</sup>lt;sup>14</sup> Contrary to Plaintiffs' assertion, the notion that athlete pay is or should be proportional to event revenues is a significant point of contention between the economists in this matter. *E.g.* TR1 ¶¶ 124-40, 146-47; TR2 ¶¶5-8; BR1 ¶¶ 44-48; OR1 ¶¶ 12-34.

athletes at specific promoters in North America to define the market instead of defining his market by measuring whether promoters, not athletes, could profitably impose a drop in pay. Mot. 28-29. Plaintiffs respond that Dr. Singer does focus on promoters, not athletes. Opp. 43. However, Dr. Singer's report does not identify the specific promoters that make up two of his three markets. SR1 ¶¶ 109, 111, 114.

Third, Dr. Singer is missing an "economic analysis" tying the athlete rankings to his market definition conclusions. Mot. 29-35. Plaintiffs respond that Zuffa failed to identify any excluded promoter that should be included in the market. Opp. 44. That is not so. There are 420 promoters identified in the Ranked market that are not included in the Tracked market and hundreds of others that are not included in the Headliner market. SR1 ¶ 109, 111, 114. Both Zuffa and Prof. Topel have argued that promoters outside the U.S. should be included in the market and that Dr. Singer fails to explain why his input markets include foreign athletes but exclude (with one exception) foreign MMA promoters. Mot. 4-5; TR1 ¶ 237. Finally, Plaintiffs use the same Alice in Wonderland circular reasoning, arguing that the results of Dr. Singer's three different regressions based on three different market definitions proves that he has correctly defined each of his markets. Opp. 44-45.

*Finally*, Plaintiffs argue that Dr. Singer could not use the correct metric to measure market share—athlete compensation—because "he did not have sufficient data to measure fighter pay directly for non-Zuffa promoters." Opp. 48. Plaintiffs do not explain their failure to obtain such data for Dr. Singer during the prolonged fact discovery period.

V. <u>Plaintiff Cannot Justify Dr. Singer's Failure To Properly Define An Output Market And Analyze Effects In That Market.</u>

Dr. Singer defined the output market's customers as "viewers, cable networks, broadcast networks, and sponsors." SR1 ¶ 115 (emphasis added). In its Motion, Zuffa argued that Dr. Singer's output market definition should be excluded because Dr. Singer conceded that he failed to perform a SSNIP test with respect to customers other than viewers. Mot. 32-35. Plaintiffs respond with two arguments:

First, Plaintiffs argue that Dr. Singer ignored some customers because "demand for Live MMA Events is ultimately driven by audience preferences." Opp. 47. This is another non-sequitur. Dr. Singer should not be allowed to opine on what drives demand when he admits that he has not analyzed how customers respond to price changes. More importantly, under the Merger Guidelines, Dr. Singer was required to "begin with the narrowest definition of a product (or product group) and expand that definition until all reasonable substitutes are included." Live Concert, 863 F. Supp. 2d at 987-88. He did not do so.

Second, Plaintiffs argue that Dr. Singer's conclusions about "direct effects" support his market definition. Opp. 37-40. Dr. Singer concluded that (1) Zuffa's implementation of a single \$5 increase in PPV price between 2008 and 2015, (2) a reduction from 15 PPV events in 2010 to 13 PPV events in 2015 and (3) implementation of a "sponsorship tax" constitutes direct evidence of monopoly power. But Dr. Singer's opinions are flawed because he failed to account for any other factor that could account for or affect the observed change. Mot. 35-38 (citing Zenith Elecs. Corp. v. WH-TV Broad. Corp., 395 F.3d 416, 419 (7th Cir. 2005).

Plaintiffs do not contest that Dr. Singer did not use "the primary tool in the tool kit of an economist" 15—regression analysis—to account for other relevant factors, such as changes to cost, demand and supply. Instead, Plaintiffs contend that the evidence Zuffa cites is "vague," Opp. 38-39, or was not "solely" accountable for the result, *id.* 40. Plaintiffs misunderstand their burden under *Daubert*. "Courts have consistently rejected 'before-and-after' models when experts failed to perform regression analysis or otherwise account for variables in the marketplace." *Stein v. Pac. Bell*, 2007 WL 831750, at \*12 (N.D. Cal. Mar. 19, 2007); *In re Aluminum Phosphide Antitrust Litig.*, 893 F. Supp. 1497, 1504 (D. Kan. 1995).

#### CONCLUSION

For the foregoing reasons, and those stated in its moving papers, Zuffa respectfully requests that the Court exclude Dr. Singer's opinions, including those in his Supplemental Expert Report.

<sup>&</sup>lt;sup>15</sup> Singer Dep. II 488:8-10.

1		
2	Dated: May 7, 2018 BOIL	ES SCHILLER FLEXNER LLP
3		
4	By:/s	s/ Nicholas A. Widnell
5		Nicholas A. Widnell ( <i>Pro hac vice</i> ) BOIES SCHILLER FLEXNER LLP
6		1401 New York Avenue, NW
7		Washington, DC 20005 Tel: (202) 237-2727
8		Fax: (202) 237-6131 Email: nwidnell@bsfllp.com
9		-
10		Attorney for Defendant Zuffa, LLC, d/b/a Ultimate Fighting Championship and UFC
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
	Zuffa Reply ISO Mot. to Exclude Testimony of D	r. Hal Singer Case No. 15-cv-01045

**CERTIFICATE OF SERVICE** The undersigned hereby certifies that service of the foregoing Zuffa, LLC's Reply in Support of Motion to Exclude the Testimony of Dr. Hal Singer under Fed. R. Evid. 702 and Daubert was served to opposing counsel on May 7, 2018 via email and the Court's CM/ECF electronic filing system addressed to all parties on the e-service list. /s/ Roderick Crawford Roderick Crawford An employee of Boies Schiller Flexner LLP